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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,725	09/28/2001	John M. Klein	SAO-104-A-1	3581

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EXAMINER

NGUYEN, TRINH T

ART UNIT PAPER NUMBER

3644

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/966,725

Applicant(s)

KLEIN, JOHN M.

Examiner

Trinh T Nguyen

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Handwritten signature

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-19 is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Due to further consideration, the restriction requirement set forth on 3/22/04 is hereby withdrawn by the Examiner.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "16" has been used to designate the rearward end portion and the rearward leg and the first leg. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "50" has been used to designate the rearward end portion and the forward leg and the second leg. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "22" has been used to designate an annular end face and the open end. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to because Figure 8 should be labeled as Figure 9 and Figure 9 should be labeled as Figure 8. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

7. The disclosure is objected to because of the following informalities: in line 4 of page 11, "FIG. 8" should be rewritten as --FIG. 9--; and in line 6 of page 11, "FIG. 9" should be rewritten as --FIG. 8--. Appropriate correction is required.

Claim Objections

8. Claim 9 is objected to because of the following informalities: in line 10, "the cylindrical forward end portion" should be rewritten as --the forward end portion-- in order to be consistent with the term "the forward end portion" as used throughout the claim; in line 14, "the weight" should be amended to --the mass--.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9: the term "the forward cylinder" is confusing because it is unclear as to what this term is referred to (i.e., to the term "the cylindrical forward end portion" or to another term).

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Klein (US 5,086,703) (Please see a more detail Figures 1 and 2 of Klein attached with the Office Action for further explanation for claims 1, 4, and 5).

For claim 1, Klein discloses a non-lethal ammunition, comprising in combination, a cylindrical casing (3, 103) closed at the rearward end and open at the forward end, a propellant cartridge (80) mounted to the rearward end and having a discharge end extending into the interior of said casing, a chemical sealant (see lines 10-20, 55-65 of col. 4 and lines 1-15 of col. 5) disposed about the propellant at the discharge end of the cartridge to facilitate uniformity of propellant firing, a projectile (5, 105) disposed in said casing, said projectile including a rearward end portion having a central cavity (35) proximate to the rearward end of the casing and a forward end portion, the central cavity enclosing the cartridge and adapted to receive

propelling gases released upon detonation of the propellant, and a payload (7, 9, 101, 117, 200) connected to the forward end portion.

For claim 4, Klein further discloses the forward end portion includes a second central cavity (41, 147), and further comprising a payload subassembly (7, 9, 101, 117, 200) said subassembly including a closure member (9) formed of a resilient material (see lines 1-5 of col. 4), and a nose member (7), the closure member including an axially stem (67) frictionally engaged with the wall of the second cavity and a cap (69) sized to close the cavity, the nose member being connected to said cap and forming a chamber therewith that carries said payload (see lines 10-20, 55-65 of col. 4 and lines 1-15 of col. 5).

For claim 5, Klein further discloses the nose includes an annular surface of a diameter slightly less than the outer diameter of said cap, wherein the nose is fictionally secured to the cap (see attached Figure 2).

For claim 6, note that Klein's nose comprises of a compliant material that resists deformation during flight but is readily breached upon impact whereby to disperse the payload around the point of impact (note that a nonmetallic material such as nylon, polyurethane elastomer or a combination of both can be interpreted as a compliant material that resists deformation but is readily breached upon impact due to the force created by the explosive propellant charges).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein (US 5,086,703).

For claim 7, Klein does not teach the nose is comprised of Styrofoam. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select such a material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Also, since applicant did not provide a reason and/or showing any criticality as to why the material has to be Styrofoam. Furthermore, it is believe that through trial and error during the manufacturing process that one comes up with a known material to meet the design criteria.

For claim 8, Klein does not teach the closure member is comprised of foam rubber. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select such a material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Also, since applicant did not provide a reason and/or showing any criticality as to why the material has to be foam rubber. Furthermore, it is believe that through trial and error during the manufacturing process that one comes up with a known material to meet the design criteria.

15. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein (US 5,086,703) in view of Applicant's Admitted Prior Art (as set forth in paragraphs [0020] to [0022] in the specification; hereinafter is referred to as AAPA).

For claim 2, Klein does not teach the sealant comprises a mixture of an ultraviolet (UV) curable acrylate and a photo-initiator, said mixture when exposed to UV light causing a cross-linking reaction to occur and a polymeric adhesive to be produced. However, as set forth in paragraphs [0020] to [0022] in the specification, AAPA admitted that it is old and well known to use such a mixture. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Klein's ammunition so as to include the use of a mixture of an ultraviolet (UV) curable acrylate and a photo-initiator, in a similar manner as taught in AAPA, in order to provide a more efficient UV curable polymeric adhesive and thus enhance a better bond between members.

For claim 3, Klein does not teach the sealant comprises a mixture consisting essentially of aliphatic urethane acrylate oligomer, high bonding acrylate hydroxyalkyl methacrylate, silica filler, and a photo-initiator. However, as set forth in paragraphs [0020] to [0022] in the specification, AAPA admitted that it is old and well known to use such a mixture. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Klein's ammunition so as to include the use of a mixture consisting essentially of aliphatic urethane acrylate oligomer, high bonding acrylate hydroxyalkyl methacrylate, silica filler, and a photo-initiator, in a similar manner as taught in AAPA, in order to provide a more efficient UV curable polymeric adhesive and thus enhance a better bond between members.

Allowable Subject Matter

16. Claims 9-16 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

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17. Claims 17-19 are allowed.

Conclusion

18. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure as cited in PTO form 892.

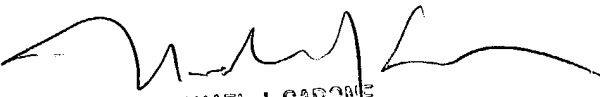
19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh T Nguyen whose telephone number is (703) 306-9082.

The examiner can normally be reached on M-F (9:30 A.M to 6:00 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Carone can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

ttn
Patent Examiner, AU 3644
07/23/04


MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER

